

R&SIE(N)

AFFIRMS THAT IT'S NOT
EASY BEING GREEN

Text **Terri Peters**
Photos **R&SIE(n)**

THE INTERIOR OF THE HOUSE IS THERMALLY REGULATED, THANKS TO POLYURETHANE INSULATION APPLIED TO EXTERIOR WALLS AND TO THE USE OF A GEO-TEXTILE TO PREVENT COLD BRIDGING.



Bizarre and otherworldly: a brief description of the experimental project that French architecture firm R&SIE(n) designed and realized in a courtyard in central Paris. Known as 'I'm Lost in Paris', it suggests new ways of thinking about ecology, cybernetics and wilderness. R&SIE(n) cofounder François Roche has an equally strange definition for his en-

igmatic project: a 'private laboratory as duck blind cabana'. The clients, however, see it as a private home for a family of four – two teenagers included. Their identity, the exact urban-courtyard location of the house and the project budget are strictly confidential. They don't want curious press or architecture students gawking at their rectangular, 130-

m2, three-bedroom home, which is entirely concealed by a green screen. An aerial photo shows no hint of a building in this courtyard. Even with GoogleEarth, it's really possible to be lost in Paris.

The house is clad on all sides in what the architect calls 'a green geo-textile cloak of ferns and glass beakers'. Roche is known for his sur-

real architectural narratives and his experiments with degradable building materials. The pseudo-scientific aesthetic includes beakers, wires, tubes and pumps, all of which allow the users to participate in an elaborate ritual of experiencing the way the building feeds, grows, lives and presumably dies, raising questions of the naturalness of nature.



THE HYDROPONIC FAÇADE BLENDS SEAMLESSLY INTO THE SURROUNDING GREENERY, MAKING THE 130-M² HOUSE IN PARIS SEEM TO DISAPPEAR.

THE THIN WIRE MESH IS INTERWOVEN WITH HYDROPONIC FERNS AND OVER 300 HAND-BLOWN GLASS BEAKERS DESIGNED TO COLLECT NUTRIENTS FOR THE PLANTS.



The neighbours were (predictably) difficult, and Roche explains: 'This is why the geometry is so simply Euclidian. It was the condition we had to meet to get the neighbours' authorization. This took five years and three projects. The petite bourgeoisie of Paris is a mess.' The clients report that the postman has no trouble finding the house and that the kids still

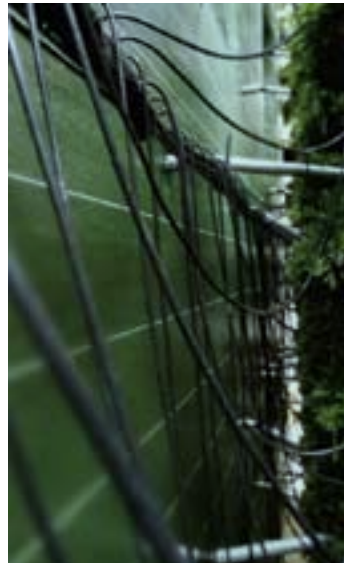
have friends over without feeling too embarrassed by its strangeness.

'The hydroponic wedding robe protects the house from overheating in the summertime,' says Roche. 'The humidity of the plants creates an interface, an interstitial space that decreases the temperature inside the house.' On the exterior, polyurethane insulation has been sprayed seam-

lessly onto walls and roof to prevent cold bridging. On top of this layer is a geo-textile, which is fed by rainwater from a 5000-litre collecting tank on the roof. The water from this tank is first pumped underground, where nutrients are added, before being fed to both the geo-textile and the outer layer of the fern 'cloak' by means of a mechanical system, drop by drop.

The space between the layers of geo-textile and ferns and beakers is for maintenance, but, Roche is quick to add, 'also for ghosts and witches, and cats and breakfast!'

Three hundred, hand-blown glass 'beakers' hang in the fern layer, reflecting light from the sky into the windows. The mainly solid glass objects weigh about 5 kg each. They »



COUNTLESS METRES OF TUBING ENSURE THE SURVIVAL OF 1200 HYDROPONIC FERNS, WHICH RELY ON WATER FROM A 5000-LITRE COLLECTING TANK ON THE ROOF.

‘Architecture is a field of prototypes’

— François Roche —

R&SIE(N) USED PARAMETRIC MODELLING ON THE FERN FAÇADE TO CONTROL THE DIMENSIONS AND THE TOPOLOGY OF THE SURFACE.



look wrinkled and bubbled, and each is unique, appearing to have grown in place. ‘They are the result of a repetitive process, and their appearance was influenced by the strength of each breath of air blown,’ says Roche. ‘The shape comes from blowing the glass – in its liquid or viscous state – while it is in a mesh grid.’ The beakers are attached to a thin wire mesh,

which supports the parametrically designed hydroponic fern wall. ‘We used parametric modelling to control the dimensions and the topology of the surface,’ he says. But this approach does not end in the generation of lines of code used to mass-customize components or even in the optimization of the functions in the building. Many of the components are

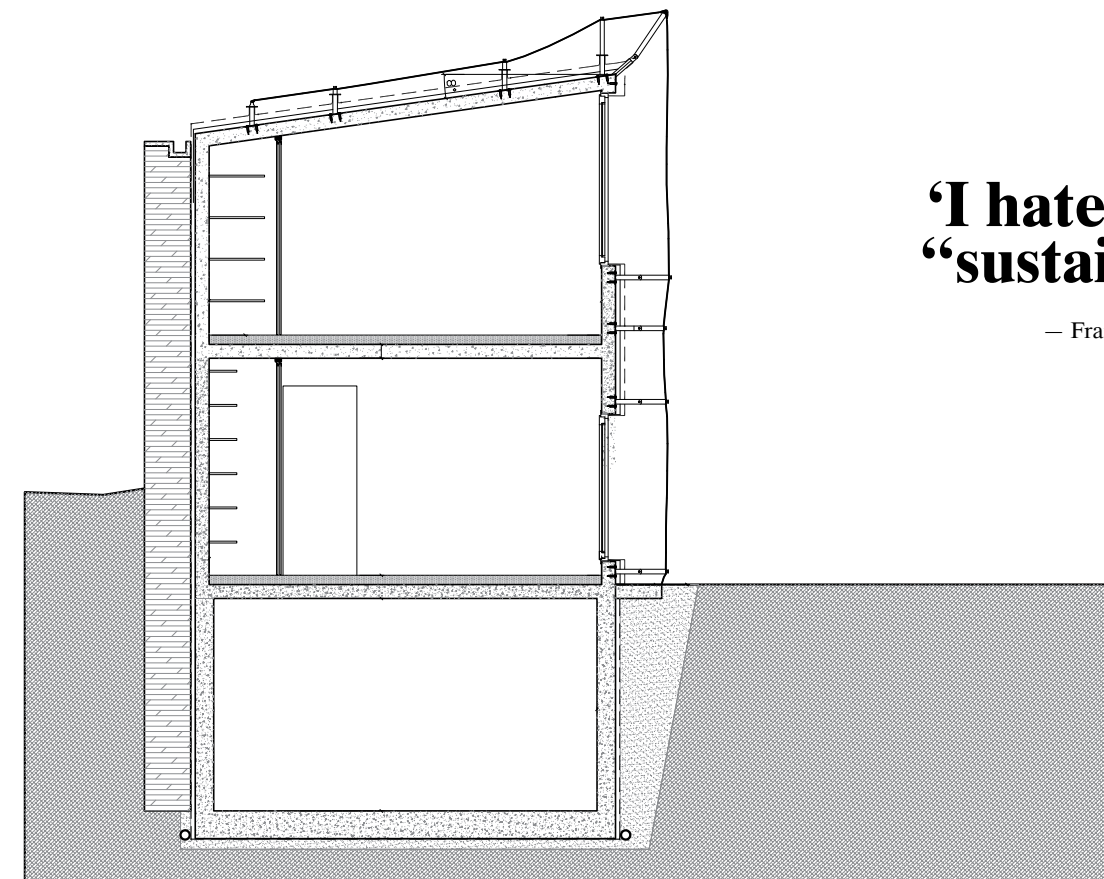
handmade, and the efficiency of the ecological systems is not as important as the concept and the aesthetic.

The bulbous glass objects have been used for their ability to filter light into the windows and also, in some cases, to collect nutrients for watering the green skin, which feeds on water, bacteria and nutrients. ‘Some of the beakers are devoted to testing and

producing Rhizobia, soil bacteria that increase the nitrogen percentage and eliminate the need for chemical manure,’ explains Roche. ‘The beakers are shaped to collect the liquid from the bottom of the vessel and the bacteria from the long neck, and to re-inject these elements into the global nutritional system.’ Rather than taming nature, his system encourages it to



EACH 5-KG GLASS BEAKER WAS HAND-BLOWN WITH THE USE OF A MESH GRID, WHICH DETERMINED THE SHAPE OF EACH UNIQUE OBJECT.



‘I hate the word “sustainability”’

— François Roche —

flourish, albeit in a designed way.

Roche may not want to talk about this project as ‘sustainable’ – ‘I hate that word and how it is has become the new high priest of moralism’ – but his project can be seen as an alternative reading of urban sustainability, in which a personal relationship with nature and site allows for multiple readings, a notion that is radical beyond

the aesthetic. Roche is disinterested in carbon counting and in energy-saving appliances; his work is subversive, both repulsing and intriguing with its glass and green façade – its ‘lost’ appearance.

Roche doesn’t rule out another such house, but it would have to be integrated into its specific context in a different way. ‘I think architecture is

a field of prototypes, each one dedicated to and extracted from a specific situation. Of course, all my designs are developed according to a specific local strategy, but, yes, why not design another hydroponic wedding robe in another context?’ «